IN THE CLAIMS:

The following is a complete listing of the claims in this application, reflects all changes currently being made to the claims, and replaces all earlier versions and all earlier listings of the claims:

1. (Previously Presented) An image processing apparatus for receiving and decoding a code sequence obtained by encoding an image, comprising:

decoding means for entropy-decoding the input code sequence to obtain quantization indices;

correction value selection means for selecting correction values among a plurality of correction values, used to correct the quantization indices obtained by said decoding means;

dequantizing means for correcting the quantization indices using the correction values selected by said correction value selection means, in accordance with values of the quantization indices and generating a series of coefficient sequences by computing products of the corrected quantization indices and a quantization step; and

inverse transforming means for restoring an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained by said dequantizing means.

- 2. (Original) The apparatus according to claim 1, wherein said inverse transforming means executes an inverse discrete wavelet transformation.
 - 3. (Canceled)

- 4. (Original) The apparatus according to claim 1, wherein said correction value selection means selects a constant correction value for dequantization of coefficients which belong to a lowest frequency band of coefficient groups which belong to a plurality of frequency bands and undergo inverse transformation by said inverse transforming means.
- 5. (Original) The apparatus according to claim 1, wherein said correction value selection means selects the correction values on the basis of information that pertains to neighboring regions of a quantization index to be dequantized.
- 6. (Original) The apparatus according to claim 5, wherein the information includes values of quantization indices of the neighboring regions.
- 7. (Previously Presented) An image processing apparatus for receiving and decoding a code sequence obtained by encoding an image, comprising:

decoding means for entropy-decoding the input code sequence to obtain quantization indices;

among a plurality of correction values, used to correct the quantization indices obtained by said decoding means, on the basis of information that pertains to neighboring regions of a quantization index to be dequantized, and on the basis of whether or not the number of zero quantization indices is not less than a predetermined value;

dequantizing means for generating a series of coefficient sequences representing an image by dequantizing the quantization indices which are decoded by said decoding means and are corrected in accordance with the correction values; and inverse transforming means for restoring an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained by said dequantizing means.

- 8. (Original) The apparatus according to claim 1, wherein the input code sequence is a code sequence obtained by breaking up coefficients that have undergone discrete wavelet transformation into bit planes, and encoding the bit planes.
- 9. (Original) The apparatus according to claim 8, wherein said correction value selection means selects the correction value in accordance with a value of the bit plane of the code sequence.
- 10. (Currently Amended) The apparatus according to claim 1, wherein said correction value selection means selects the correction value in accordance with a value of a flag indicating an image type additional information for specifying the correction value included in the code sequence.
- 11. (Previously Presented) An image processing method for receiving and decoding a code sequence obtained by encoding an image, comprising:

a decoding step, of entropy-decoding the input code sequence to obtain quantization indices;

a correction value selection step, of selecting correction values among a plurality of correction values, used to correct the quantization indices obtained in said decoding step;

a dequantization step, of correcting the quantization indices using
the correction values selected in said correction value selection step, in accordance with
values of the quantization indices and generating a series of coefficient sequences by
computing products of the corrected quantization indices and a quantization step; and
an inverse transforming step, of restoring an image signal by
executing a predetermined inverse transform manipulation of the coefficient sequences
obtained in said dequantizing step.

- 12. (Original) The method according to claim 11, wherein said inverse transform step includes a step of executing inverse discrete wavelet transformation.
 - 13. (Canceled)
- 14. (Currently Amended) The method according to claim 11, wherein said correction value selection step includes the step of selecting a constant correction value for dequantization of coefficients which belong to a lowest frequency band of coefficient groups which belong to a plurality of frequency bands and undergo inverse transformation in the said inverse transform step.
- 15. (Previously Presented) The method according to claim 11, wherein said correction value selection step includes the step of selecting the correction values on PAGE 8/20* RCVD AT 5/10/2004 5:04:46 PM [Eastern Daylight Time] * SVR:USPTO-EFXFF-1/1 * DNIS:8729306 * CSID:1212 218 4551 * DURATION (mm-ss):04-56

the basis of information that pertains to neighboring regions of a quantization index to be dequantized.

- 16. (Original) The method according to claim 15, wherein the information includes values of quantization indices of the neighboring regions.
- 17. (Previously Presented) An image processing method for receiving and decoding a code sequence obtained by encoding an image, comprising:

a decoding step, of entropy-decoding the input code sequence to obtain quantization indices;

a correction value selection step, of selecting correction values among a plurality of correction values, used to correct the quantization indices obtained in said decoding step, on the basis of information that pertains to neighboring regions of a quantization index to be dequantized, and on the basis of whether or not the number of zero quantization indices is not less than a predetermined value;

a dequantization step, of generating a series of coefficient sequences representing an image by dequantizing the quantization indices which are decoded in said decoding step and are corrected in accordance with the correction values; and

an inverse transforming step, of restoring an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained in said dequantizing step.

- 18. (Original) The method according to claim 11, wherein the input code sequence is a code sequence obtained by breaking up coefficients that have undergone discrete wavelet transformation into bit planes, and encoding the bit planes.
- 19. (Previously Presented) The method according to claim 18, wherein said correction value selection step includes the step of selecting the correction value in accordance with a value of the bit plane of the code sequence.
- 20. (Currently Amended) The method according to claim 11, wherein said correction value selection step includes the step of selecting the correction value in accordance with a value of a flag indicating an image type additional information for specifying the correction value included in the code sequence.
- 21. (Previously Presented) A computer readable storage medium that stores a program for executing an image processing method for receiving and decoding a code sequence obtained by encoding an image, comprising:
- a decoding step module, for entropy-decoding the input code sequence to obtain quantization indices;
- a correction value selection step module, for selecting correction values among a plurality of correction values, used to correct the quantization indices obtained by said decoding step module;
- a dequantization step module, for correcting the quantization indices using the correction values selected in said correction value selection step, in accordance

with values of the quantization indices and generating a series of coefficient sequences by computing products of the corrected quantization indices and a quantization step; and an inverse transforming step module, of restoring an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained in said dequantizing step module.

- 22. (Original) The medium according to claim 21, wherein said inverse transform step module executes inverse discrete wavelet transformation.
 - 23. (Canceled)
- 24. (Original) The medium according to claim 21, wherein said correction value selection step module selects a constant correction value for dequantization of coefficients which belong to a lowest frequency band of coefficient groups which belong to a plurality of frequency bands and undergo inverse transformation in said inverse transform step module.
- 25. (Original) The medium according to claim 21, wherein said correction value selection step module selects the correction values on the basis of information that pertains to neighboring regions of a quantization index to be dequantized.
- 26. (Original) The medium according to claim 25, wherein the information includes values of quantization indices of the neighboring regions.

27. (Previously Presented) A computer readable storage medium that stores a program for executing an image processing method for receiving and decoding a code sequence obtained by encoding an image, comprising:

a decoding step module, for entropy-decoding the input code sequence to obtain quantization indices;

a correction value selection step module, for selecting correction values among a plurality of correction values, used to correct the quantization indices obtained by said decoding step module, on the basis of information that pertains to neighboring regions of a quantization index to be dequantized, and on the basis of whether or not the number of zero quantization indices is not less than a predetermined value;

a dequantization step module, for generating a series of coefficient sequences representing an image by dequantizing the quantization indices which are decoded by said decoding step module and are corrected in accordance with the correction values; and

an inverse transforming step module, of restoring an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained in said dequantizing step module.

- 28. (Previously Presented) An image processing apparatus for receiving and decoding a code sequence obtained by encoding an image, comprising:
- a decoder, provided to entropy-decoding the input code sequence to obtain quantization indices;

a correction value selection unit, provided to select correction values among a plurality of correction values, used to correct the quantization indices obtained by said decoder;

a dequantizer, provided to correct the quantization indices using the correction values selected by said correction value selection unit, in accordance with values of the quantization indices and generate a series of coefficient sequences by computing products of the corrected quantization indices and a quantization step; and

inverse transforming unit, provided to restore an image signal by executing a predetermined inverse transform manipulation of the coefficient sequences obtained by said dequantizer.